

Denton Enterprise Airport Master Plan - Air Cargo Assessment



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Introduction

- Hubpoint Strategic Advisors was engaged by Coffman Associates to lead the air cargo elements of the Denton Enterprise Airport (“DTO”) Master Plan
- The primary objectives of this project are to:
 - Conduct an air cargo market analysis to determine outlook for DTO air cargo activities
 - Develop long-term 20-year air cargo forecasts for DTO in tonnage and all-cargo aircraft operations
 - Develop DTO air cargo revenue forecasts based on activity forecasts
- The approach to the project involved:
 - Primary research in the form of interviews with select Denton area companies/organizations
 - Secondary research and analysis relying on publicly available data and information
 - Synthesis of findings incorporating Hubpoint’s institutional knowledge on relevant subject matter
- Hubpoint executed the defined Scope of Work and the major findings and output are summarized in this report

Air Cargo Industry Trends

Information on air cargo industry trends provides valuable perspective when considering DTO's air cargo development opportunities

To provide background and context for this report, it is helpful to review some trends in the air cargo industry that could influence the development of the Denton Enterprise Airport's air cargo business. Attention was given to those trends deemed to be most relevant to DTO's air cargo business. It is likely that many of these industry trends signify structural change that will continue well into the future and, therefore, have long-term implications on cargo activities at airports.

The air cargo industry is constantly evolving and adapting to macroeconomic factors. This is true for cargo activity in both the U.S. domestic market as well as international markets. The U.S. domestic air cargo market has long been viewed as mature and dominated by the duopoly of FedEx and UPS. After many years of uneventful, low growth, the market was energized by the e-commerce industry and the entry of Amazon Air. However, post-pandemic, the industry experienced a market correction and is now in a down cycle.

Separately, the roles of alternative cargo airports and the belly cargo of passenger operations have evolved in recent years. Currently, the impacts of tariffs and trade wars between the U.S. and foreign countries have the potential to cause sweeping changes to supply chains and, in turn, how air cargo is utilized in domestic and international markets. Understanding the potential impacts of these trends can enable airports to prepare for new air cargo environments from a planning perspective and, potentially, leverage the changes to their benefit.

Air cargo industry trends

Secondary Gateway Airports



- Secondary cargo gateway airports have proven their advantages and long-term value – lower costs, less airside/landside congestion, labor supply, proximity to important markets
- Typically, international freighter service begins on behalf of a large customer and then other customer shipments are added
- In recent years, international e-commerce companies have frequently utilized secondary gateways in the U.S.
- Sustainability of service relies on network development beyond the initial, primary route as well as sourcing backhaul cargo

E-commerce Evolution



- Pandemic-era high growth has now yielded to slower growth
- Cyclical environment and maturing industry naturally reduces demand
- Rapid addition of U.S. airport service points has been paused as regional fulfillment strategies have leveraged trucking more than air transportation
- International direct-to-consumer e-commerce businesses (e.g. Shein, Temu) have relied heavily on air cargo capacity to quickly fulfill U.S. orders

Air cargo industry trends

Public Policy Changes



- Tariffs and trade wars are impacting international trade outlook
- Uncertainty of trade policies between U.S. and foreign countries and added costs due to tariffs may have the effect of suppressing demand for international trade which, in turn, can reduce demand for air cargo
- Real-time situation with unknown outcomes
- Reshoring and related changes to global supply chains could alter use of air cargo over the long-term

Belly Cargo Importance



- Cargo can add meaningful revenue to passenger airlines and positively influence passenger route economics, particularly on international routes served with widebody aircraft
- Belly cargo capacity accounts for approximately 50% of total global cargo capacity
- Importance of cargo revenue revealed during pandemic
- Foreign-flag airlines are particularly focused on belly cargo, especially those airlines that also offer all-cargo freighter service

Air cargo industry trends

FedEx



- Current strategies focus on cost-cutting and service realignment
- Increasing use of trucking within the domestic U.S. network and reduced emphasis on costly air transportation
- Pilot layoffs and aircraft retirements (including older B757s)
- Recently noted interest in carrying general, heavyweight freight, utilizing MD-11s that had been scheduled for retirement
- Modernizing its feeder fleet with Cessna SkyCourier
- Increasing use of passenger belly capacity for some shipments
- USPS air mail contract ended September 2024

UPS



- Undergoing cost control and air network optimization measures
- Increasing use of trucking in the domestic U.S. network
- Pilot layoffs; retiring some aircraft
- Gained USPS air mail business from FedEx
- Prioritizing premium air freight, including pharmaceuticals, medical devices and electronics
- Continued moratorium on capital spending at U.S. airports
- Recently announced strategy to reduce Amazon volumes by 50%

Air cargo industry trends

Amazon Air



- Rationalizing air network and exiting some airports; slowing expansion to U.S. airports, including smaller airports
- Regional fulfillment strategies centered on locating inventory closer to customers and relying more on trucking and less on air transportation
- Offering excess capacity to third-party (non-Amazon) shippers
- Promoting Amazon Air Cargo in the U.S. domestic market aimed at general, heavyweight shipments and freight forwarders

Forwarder Charters



- All-cargo aircraft owned or chartered by freight forwarders leads to increased use of alternative cargo gateway airports in the U.S.
- Global forwarders controlling freighter aircraft include Maersk, Kuehne+Nagel, MSC, DB Schenker, DSV, and CMA CGM
- For these forwarders, adding aircraft enables premium services to key customers and differentiation from competitors
- Forwarders are growing aircraft fleets and expanding networks, creating opportunities for certain U.S. airports with the ability to serve widebody intercontinental freighter services

Air cargo industry trends

UAS/UAV Use in Air Cargo



- Current major commercial operators: Amazon Prime Air, UPS Flight Forward, Wing, Zipline
- Utilize Part 135 certified drones approved by FAA; larger equipment in development; outlook for rapid expansion
- Ameriflight (feeder for FedEx, UPS, DHL) announced an order of 20 large autonomous cargo airplanes
- Walmart currently offers deliveries via drones from multiple stores in the DFW metro area (incl. Fort Worth) and plans to aggressively expand the services throughout the region

Nearshoring



- Nearshoring to Mexico has grown as it offered a refuge from trade wars (esp. for Chinese companies), increased supply chain resiliency with proximity to the U.S. & competitive labor rates
- Model is now being threatened with the current volatility in international trade and U.S. public policy
- As long supply chains (Asia to U.S.) shorten, potential for transformative change, including for air cargo
- Possibilities of smaller aircraft service on short-haul international routes serving smaller U.S. airports

DTO Current Situation and Air Cargo Capabilities

Cargo charter flights represent a small portion of overall DTO activity, but they provide valuable services to Denton area manufacturers

Denton Enterprise Airport is a general aviation airport located in the City of Denton which is situated in the northern region of the Dallas-Fort Worth Metroplex. DTO has excellent access to the interstate highway system with the nearby junction of I-35E and I-35W forming I-35 towards Oklahoma City and other points north.

DTO ranks as the fifth busiest airport in Texas based on annual aircraft operations. A contract air traffic control tower is staffed daily and maintains regular operating hours. The Airport is home to six flight schools and Med-Trans, a leading provider of air ambulance services.

Currently, air cargo operations account for a small share of the overall flight activity at DTO. There are no scheduled cargo flights at the Airport, all cargo flights operate as on-demand charters. The Sheltair FBO performs ground handling services for cargo charters including loading/unloading freight, aircraft fueling and coordination with trucking companies for pick-up and delivery. Most cargo charters carry inbound freight to Denton and outbound shipments are rare.

Finally, Berry Aviation, an operator of on-demand cargo charters, has based aircraft at DTO. From DTO, Berry primarily operates cargo charters related to the automotive industry for shipments from Mexico as well as border airports like El Paso and Laredo. While many of Berry's DTO operations are for customers located in other cities and states, some of their DTO cargo charters serve Denton-based companies. In this manner, Berry plays a critical role for manufacturers in the Denton area.

Denton Enterprise Airport area

TWO RUNWAYS

18L/36R – 7,002' x 150' Max 100k lbs
18R/36L – 5,003' x 75' Max 30k lbs

MARKET ACCESS

DTO located at the junction of
I-35W (Fort Worth) / I-35E (Dallas)
I-35 (Oklahoma City)

FACILITIES

Full-service Maintenance and Repair
FBO - Refueling Center

AIR CARGO SERVICES

On-Demand Cargo Charters
Cargo ground handling by Sheltair

ATC TOWER

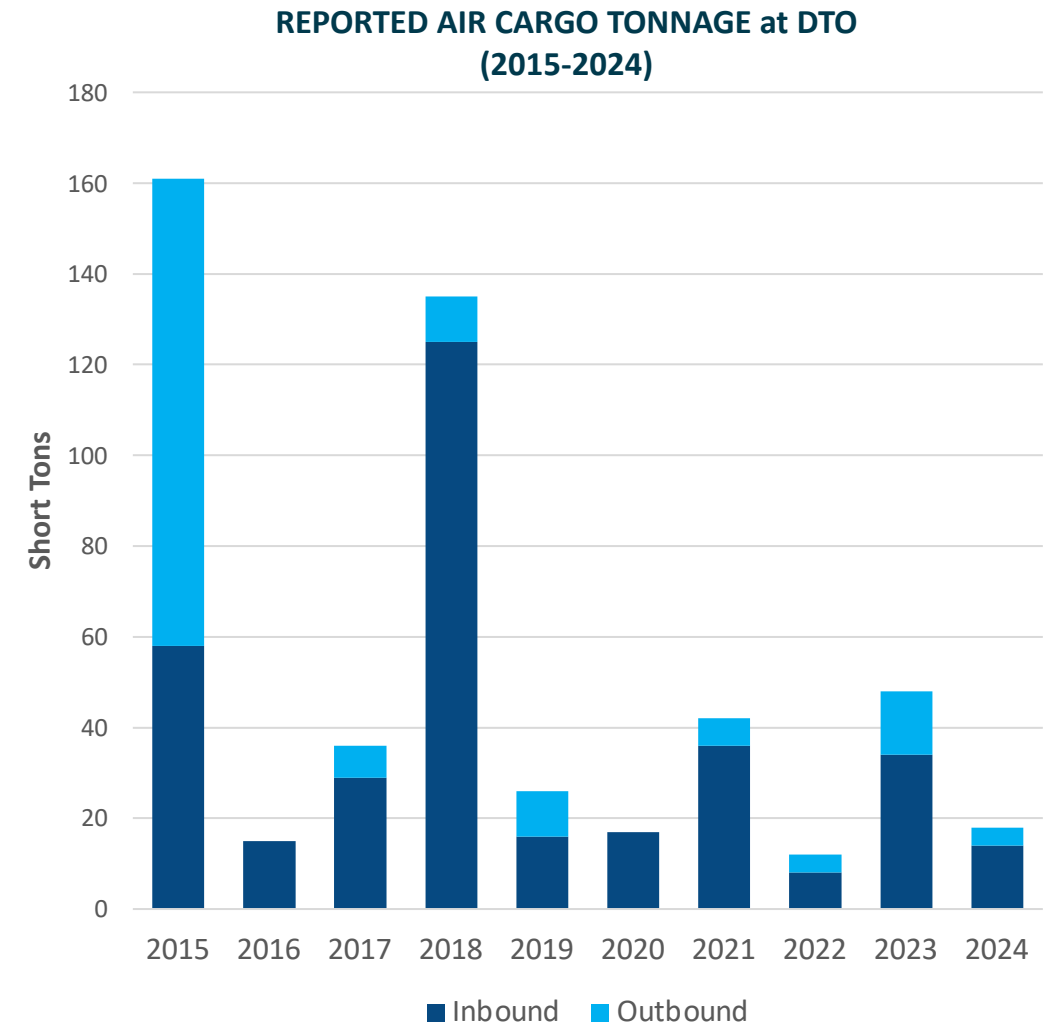
Hours: 6:00 am – 10:00 pm

FTZ: In FTZ039 and adjacent to FTZ168



DTO air cargo data sourced from U.S. DOT shows wide variations in annual tonnage handled over the past 10 years

- Most cargo charters at DTO are operated by smaller, Part 135 air carriers which are not required to report data to the U.S. DOT
- Part 121 air carriers, which typically operate larger aircraft on a scheduled basis, are required to submit cargo data to U.S. DOT; this data enables certain observations about air cargo at DTO
- Due to the on-demand nature of charter operations, DTO cargo tonnage varies greatly on a year-to-year basis
- With the exception of 2015, DTO cargo flights primarily carry inbound tonnage; over the past 5 years, 80% of tonnage was inbound
- Common cargo airlines at DTO include: IFL Group, Ameristar, Royal Air Freight, Berry Aviation, Encore
- Cargo charters at DTO often utilize: EMB-120F, Dassault Falcons, Learjet 35, CRJ-200F



Air cargo operations at DTO face certain limitations related to facilities, infrastructure and available services

- DTO does not have dedicated air cargo facilities for freight storage before loading to and after unloading from aircraft. Cargo facilities also allow freight shipments to be built up / broken down efficiently and in a controlled, indoor environment.
- Without cargo facilities, freight must be handled on the ramp and ground transportation (i.e. trucking) must be carefully coordinated with the cargo flight operations due to lack of adequate areas to store the freight.
- DTO's runway length and strength limits the operations of larger jet aircraft carrying heavyweight freight. Although DC-9 cargo freighters sometimes operate at DTO, payloads are limited.
- As needed, Sheltair typically utilizes forklifts to load and unload cargo from cargo charters. Larger cargo aircraft often require use of a main deck loader which is not currently available at DTO.
- DTO does not have on-site U.S. Customs staff which limits cargo flight operations to domestic U.S. flights. For instance, cargo flights operating from Mexico to DTO, must first clear Customs at a U.S. airport (e.g. Laredo), before proceeding on to DTO.

Regional Air Cargo Market

While the regional air cargo market is large, the primary service area for DTO air cargo is limited

The regional air cargo market for DTO is driven by demand for air cargo services generated within the Dallas-Fort Worth Metroplex. Recognizing the influence of the region's three commercial airports and the characteristics of DTO's charter cargo services, the primary service area for DTO air cargo is likely defined as the area within approximately 20 minutes' drive time of the airport.

Given this limited service area, research focused on business activities in close proximity to DTO. Several companies in the immediate area were identified, with operations that include manufacturing, distribution, and logistics - activities that generally correlate with air cargo demand. A deeper review of the primary business functions at locations near DTO revealed that while some companies ship by air, many do not.

Several companies operate distribution centers for retail and grocery stores in the region, which largely rely on trucking rather than air transportation. Furthermore, these and other companies are not shipping air-eligible goods (e.g., low-weight, high-value items requiring expedited delivery). Other companies (e.g. those related to the automotive industry) do ship via air cargo.

Interviews were conducted with several companies and with other stakeholders familiar with major business activities in the local area. The overall conclusion from this effort was that, while a few local companies regularly utilize air cargo services (including at DTO), there is relatively little demand for air cargo within the immediate area. Profiles of various companies near DTO are provided in this section of the report.

The DTO area includes some companies known to utilize air cargo services, but many other companies do not ship air-eligible goods

Profiles of Select Local Companies



Sheltair: DTO's FBO provides ground support for passenger and all-cargo aircraft, hangar space & tie downs and other services. For cargo operations, Sheltair loads/unloads freight, fuels aircraft and coordinates with trucking services.



Peterbilt: Denton is HQ and only U.S. manufacturing plant. All Class 8 conventional heavy-duty commercial vehicles are produced in Denton, with a system of 450 North American suppliers. Uses DTO for just-in-time cargo charters using twin and single engine planes. Occasional larger charters (e.g. B727s, DC-9s) use AFW.



Enginetech: Makes cylinder and head covers and air filters for trucks, including Peterbilt and Caterpillar. The new U.S. headquarters and production is located in Denton, north of DTO.



Safran: The Denton plant produces electrical connection systems for military aircraft. All products are for U.S. use and made with U.S. materials. Utilizes integrators for small package air shipments.



Greenpoint: A subsidiary of the Safran parent company. The Denton plant produces VIP cabinetry and precision machinery for custom business jet interiors.



Berry Aviation: On-demand cargo with a base for all-cargo EMB-120s at DTO. Specializes in just-in-time cargo for manufacturers, industrial plants - especially automotive. Some of Berry's cargo charters at DTO are operated for shipments to/from Denton companies.



Tetra Pak: Manufactures packaging, and filling and processing machines for dairy, beverages, cheese, ice cream, and prepared foods.



Southwire: Manufactures copper wiring and metal-clad cables for residential and commercial buildings. The Denton facility is the recently expanded 500,000 sf campus acquired with the purchase of United Copper.



EMLS: Custom assembly services, and Just-in-Time logistics for manufacturing for heavy truck, automotive, distribution, and make-ready assembly.



ESAB: Manufactures light industrial products such as welders and automated cutting systems. Denton is a core manufacturing location, North American distribution center, and R&D facility.

The DTO area includes some companies known to utilize air cargo services, but many other companies do not ship air-eligible goods

Profiles of Select Local Companies



Stulz Air Technology Systems: Announced a new 200,000 sf plant in Denton County expected to open in 2025. It will make precision cooling technology for data centers.



Mayday: Part of the Esco Technologies Aerospace & Defense Division, Mayday is a build-to-print manufacturer of aerospace bushings, pins, sleeves, and turned metal parts.



Lowe's: Lowe's home improvement chain has a 650,000 sf direct fulfillment center focused on e-commerce sales, including Hazmat products such as a lithium battery-powered outdoor power equipment.



Fastenal: Fastenal has a 200,000 sf regional distribution center near DTO for industrial supplies, fasteners such as bolts and threaded rods, and safety products.



Reader Link: 400,000 square foot media materials national distribution center



Target: Target has a 440,000 sf regional distribution center near DTO. It is the company's first robotics distribution facility.



WinCo Foods: 850,000 square foot regional distribution center for the WinCo Supermarket chain



Aldi: 474,000 square foot regional distribution center for the Aldi Supermarket chain adjacent to DTO



United States Cold Storage: 280,000 square foot regional distribution center near DTO cold stores and distributes products such as meats and flowers, as well as specialty products like aerospace parts



Chill Storage: 302,000 sf Class A freezer cooler facility, completed in 2023, serving the Denton food distribution centers.



Jostens: Manufactures custom class and sports rings, graduation hats/gowns, yearbooks, school apparel and gifts.

Regional demand for international air cargo services is robust, particularly for markets in Asia and Europe

The Dallas-Fort Worth Metroplex is a center for companies manufacturing air-eligible goods, including computers, chemicals, pharmaceuticals, medical devices, auto parts and perishables. These business activities generate demand for import and export shipments via international air cargo services.

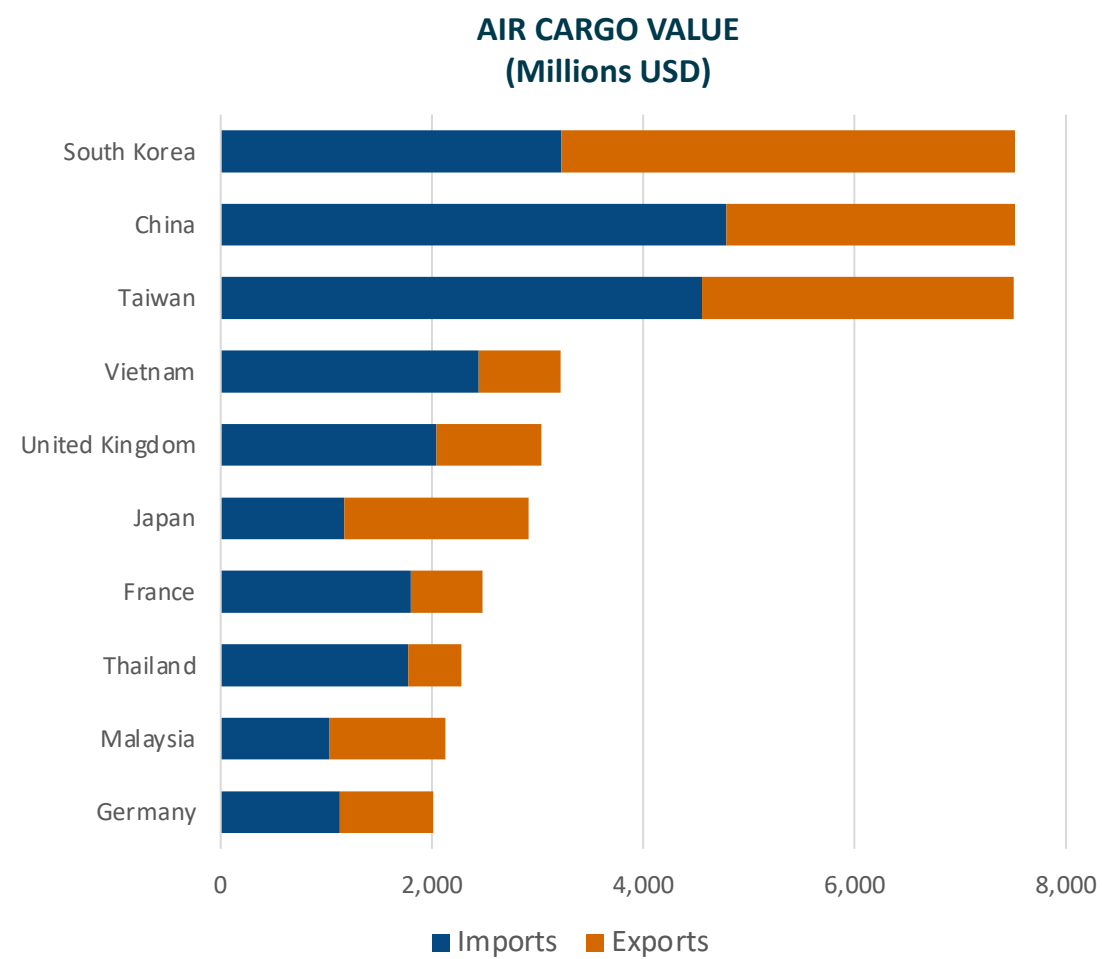
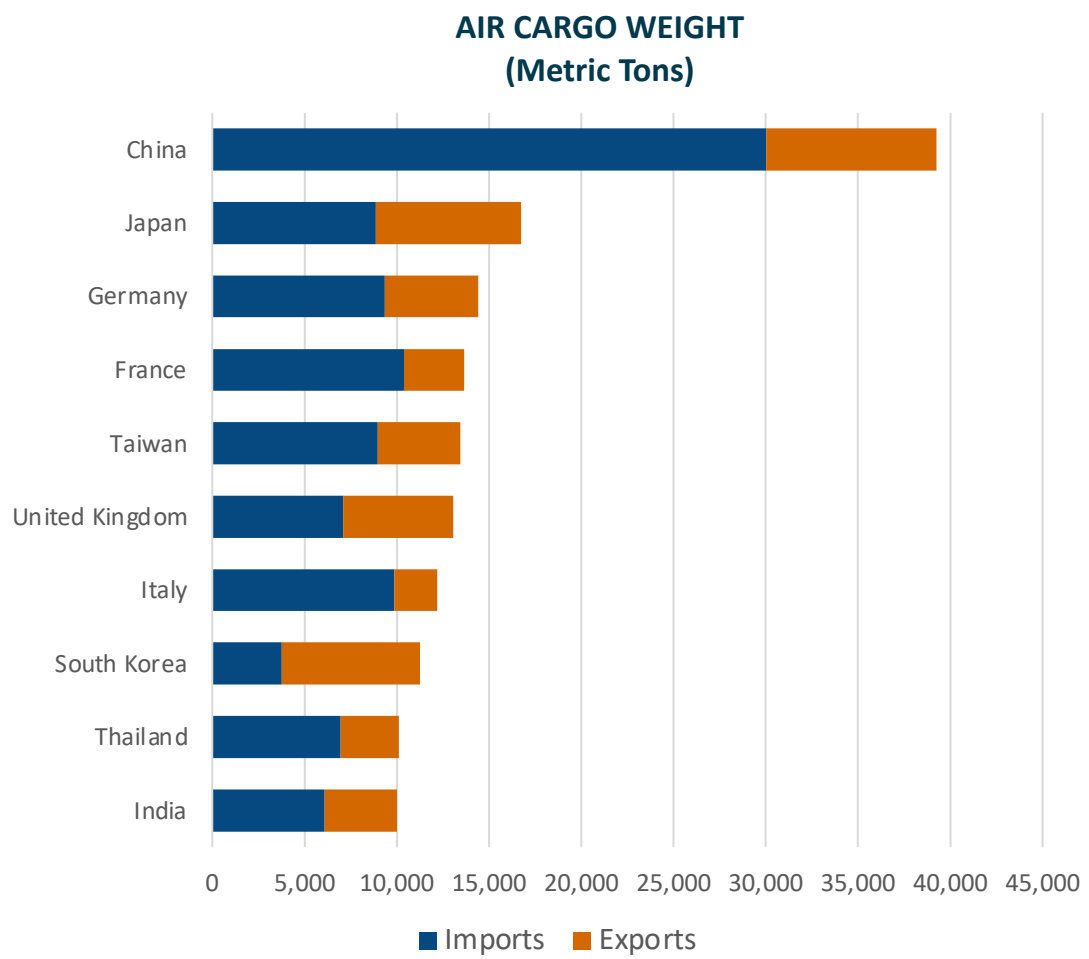
Geographically, Asia and Europe are the major international markets for air cargo shipments transiting the commercial airports in the Dallas-Fort Worth area. Leading country markets for international air trade include China, Japan, Taiwan, Germany, France and the United Kingdom.

Major commodities moving between the U.S. and international markets via the Dallas-Fort Worth area airports include electric machinery, industrial machinery, medical equipment, aerospace parts, high value goods, plastics and chemicals.

The concentration of international air services available in the Dallas-Fort Worth area, particularly at DFW International Airport, attracts air cargo from Texas and many other states, including California, Oklahoma, Louisiana and Tennessee.

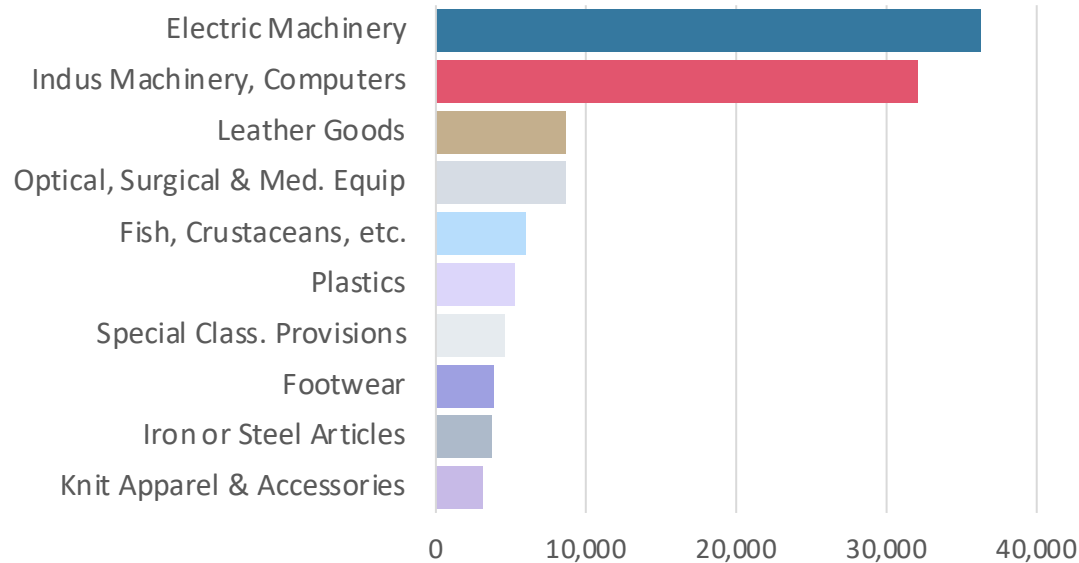
Details of these international air trade flows are provided in this section. While not necessarily directly relevant to DTO, the statistical information provides insights on the drivers of air cargo demand and the importance of regular, scheduled air services to supply the required air cargo capacity.

Top international country-markets for air trade shipped via the Dallas-Fort Worth area airports (2024)

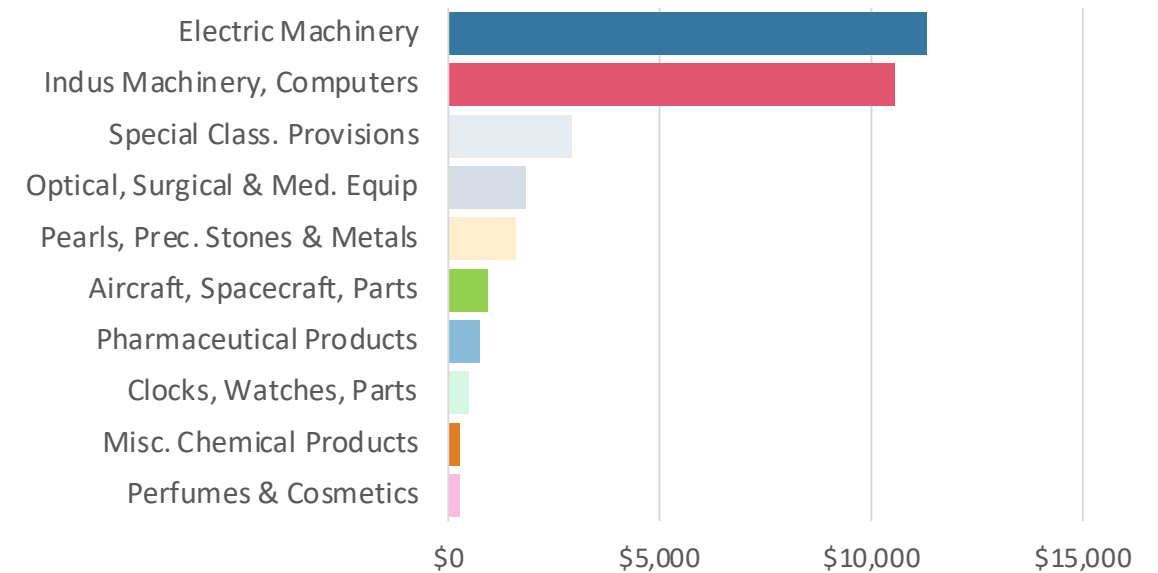


Top air import commodities shipped via the Dallas-Fort Worth area airports from the world (2024)

**AIR CARGO WEIGHT
(Metric Tons)**

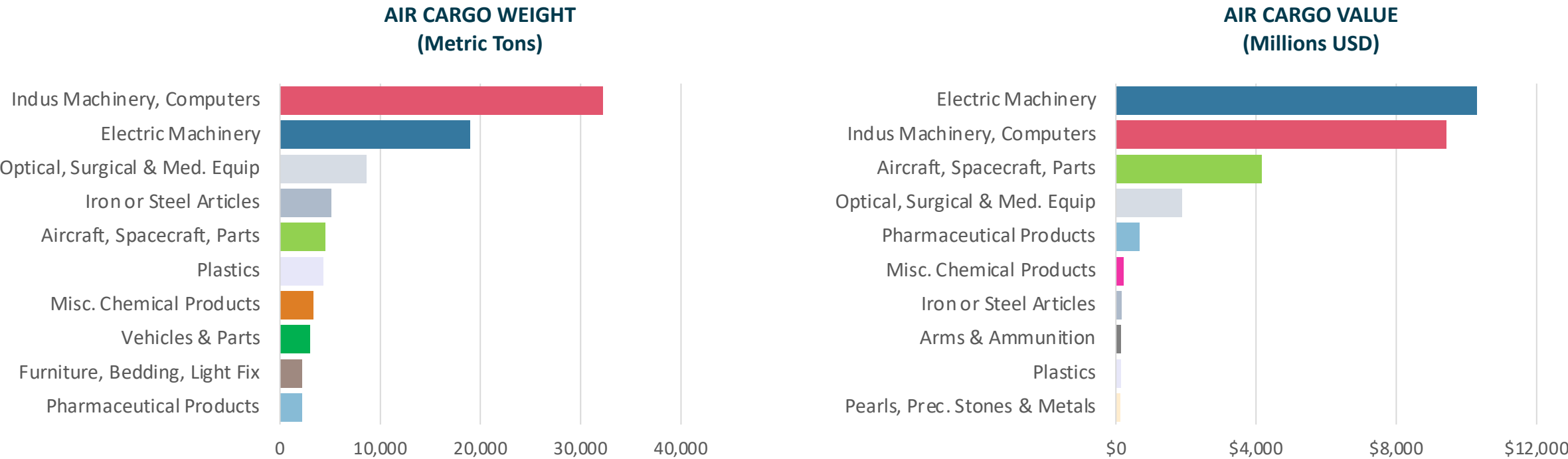


**AIR CARGO VALUE
(Millions USD)**



Source: U.S. Department of Commerce, Foreign Trade Statistics, CY 2024. Includes ports of Dallas-Fort Worth, TX, Forth Worth Alliance Airport, and Dallas Love Field User Fee Airport

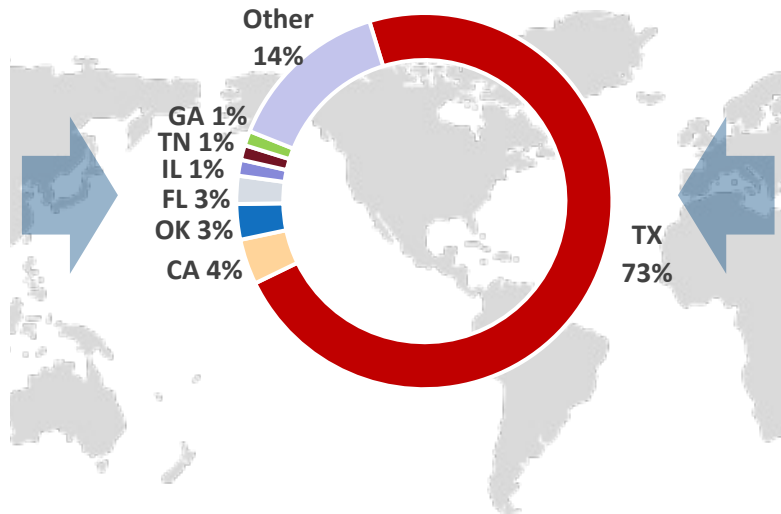
Top air export commodities shipped via the Dallas-Fort Worth area airport to the world (2024)



Source: U.S. Department of Commerce, Foreign Trade Statistics, CY 2024. Includes ports of Dallas-Fort Worth, TX, Forth Worth Alliance Airport, and Dallas Love Field User Fee Airport

Air imports and exports by state shipped via the Dallas-Fort Worth area airports (2024)

INTERNATIONAL AIR **IMPORTS**
BY DESTINATION STATE
(Metric Tons)



IMPORTS TONNAGE

Texas = 108,508

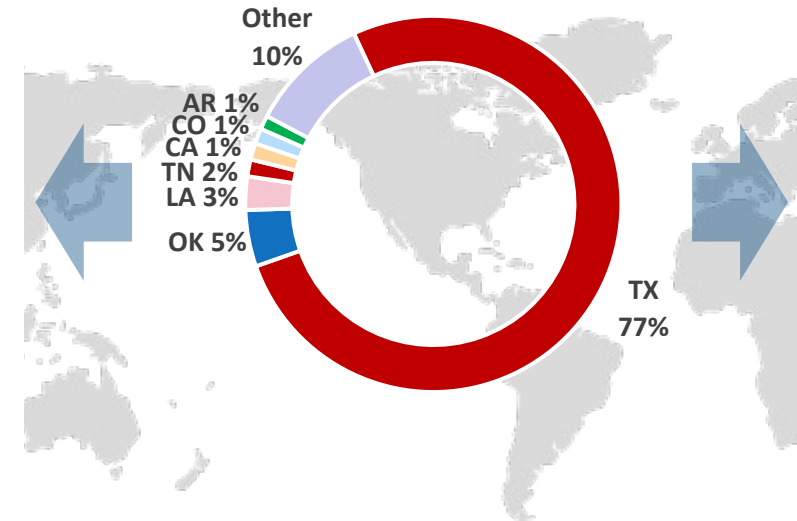
California = 5,831

Oklahoma = 4,567

Florida = 3,613

Total = 149,618

INTERNATIONAL AIR **EXPORTS**
BY ORIGIN STATE
(Metric Tons)



EXPORTS TONNAGE

Texas = 81,333

Oklahoma = 5,165

Louisiana = 3,051

Tennessee = 1,541

Total = 106,225

The DTO regional air cargo market is highly competitive and features three commercial airports offering a wide range of cargo services

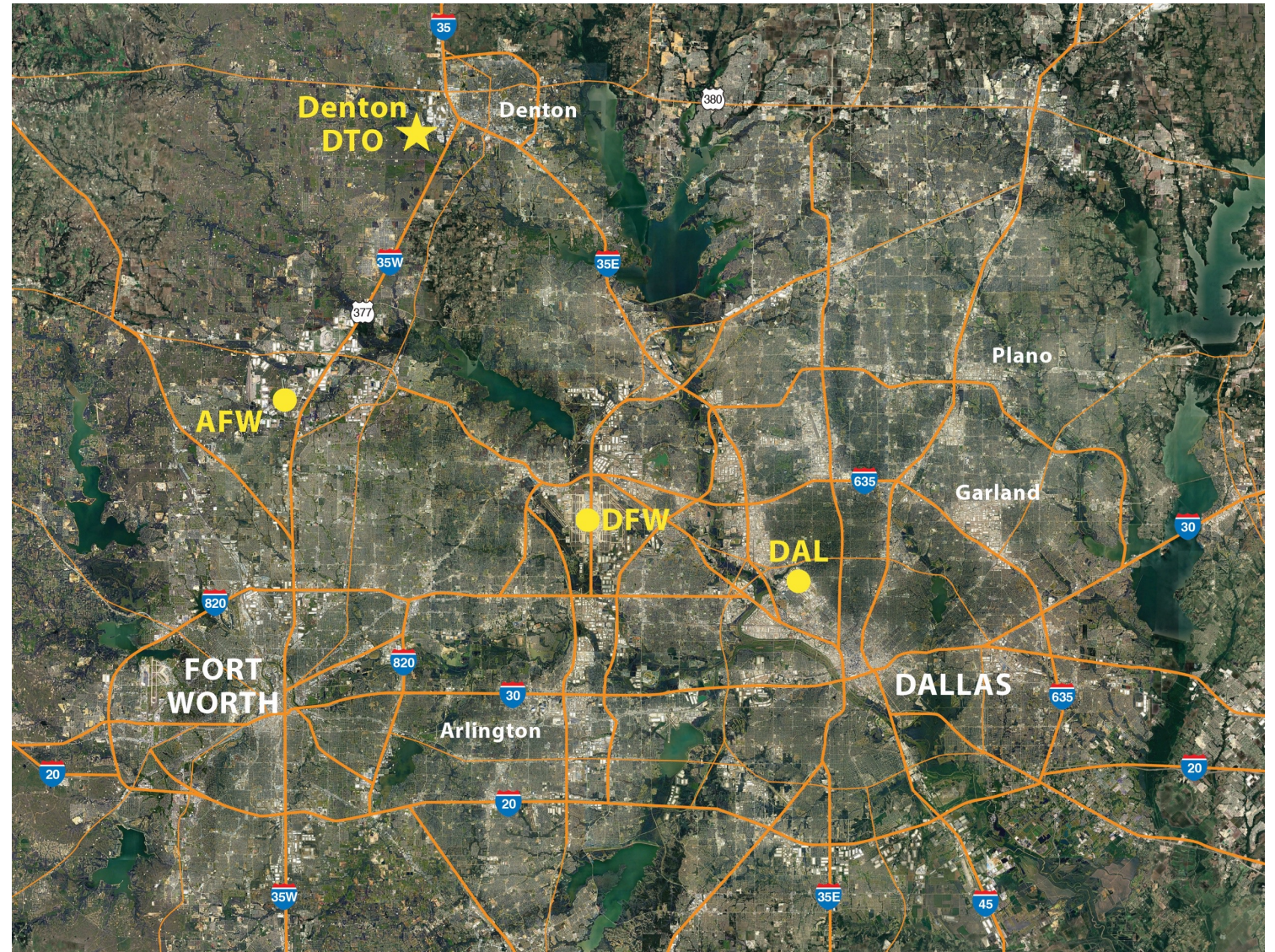
The Dallas-Fort Worth area is one of the largest metropolitan areas in the U.S. and it is also one of the most well-served air cargo markets. Three commercial airports – Dallas-Fort Worth International Airport (DFW), Fort Worth Alliance Airport (AFW) and Dallas Love Field (DAL) – offer a variety of air cargo services.

- DFW has the most diverse air cargo environment with all-cargo freighters serving multiple continents, belly cargo from its widebody and narrowbody passenger aircraft serving domestic and international markets, and integrated express carrier services. The airport has multiple cargo facilities, world-class cargo ground handlers, on-site government agencies for Customs and other inspections, a large freight forwarder base and related trucking operations.
- AFW hosts a FedEx regional hub as well as an Amazon Air regional hub. Additionally, cargo charters regularly operate at AFW.
- DAL is home to one of Southwest Airlines' largest operations for belly cargo with both domestic and international passenger air services. Southwest also consistently ranks among the top U.S. airlines for the quality of its cargo services.

Collectively, these three airports offer a depth and breadth of cargo services that effectively cover the needs of every shipper.

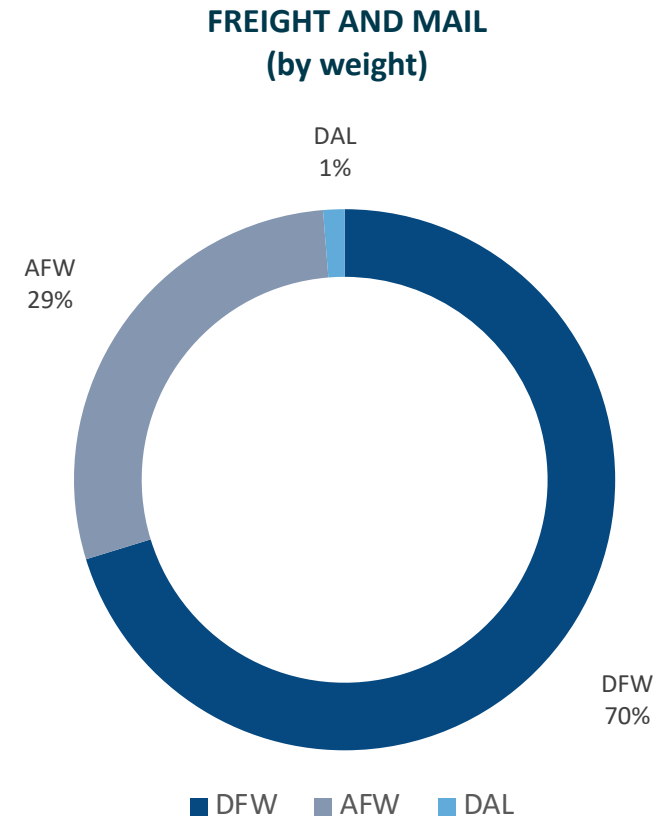
DTO is located within close proximity of the three commercial airports serving the region's air cargo demand

- Distance and drive time from DTO:
 - DFW – 30 miles / 35 min.
 - AFW – 20 miles / 30 min.
 - DAL – 40 miles / 50 min.
- All market segments are served by the three airports
 - International / Domestic
 - Heavy Freight / E-commerce / Small Package Express
 - All-cargo freighters with main deck capacity / Passenger aircraft with belly capacity
- Extensive trucking services support air cargo services



Each of the commercial airports have air cargo niches, with DFW's scale and capacity leading to a dominant share of cargo in the region

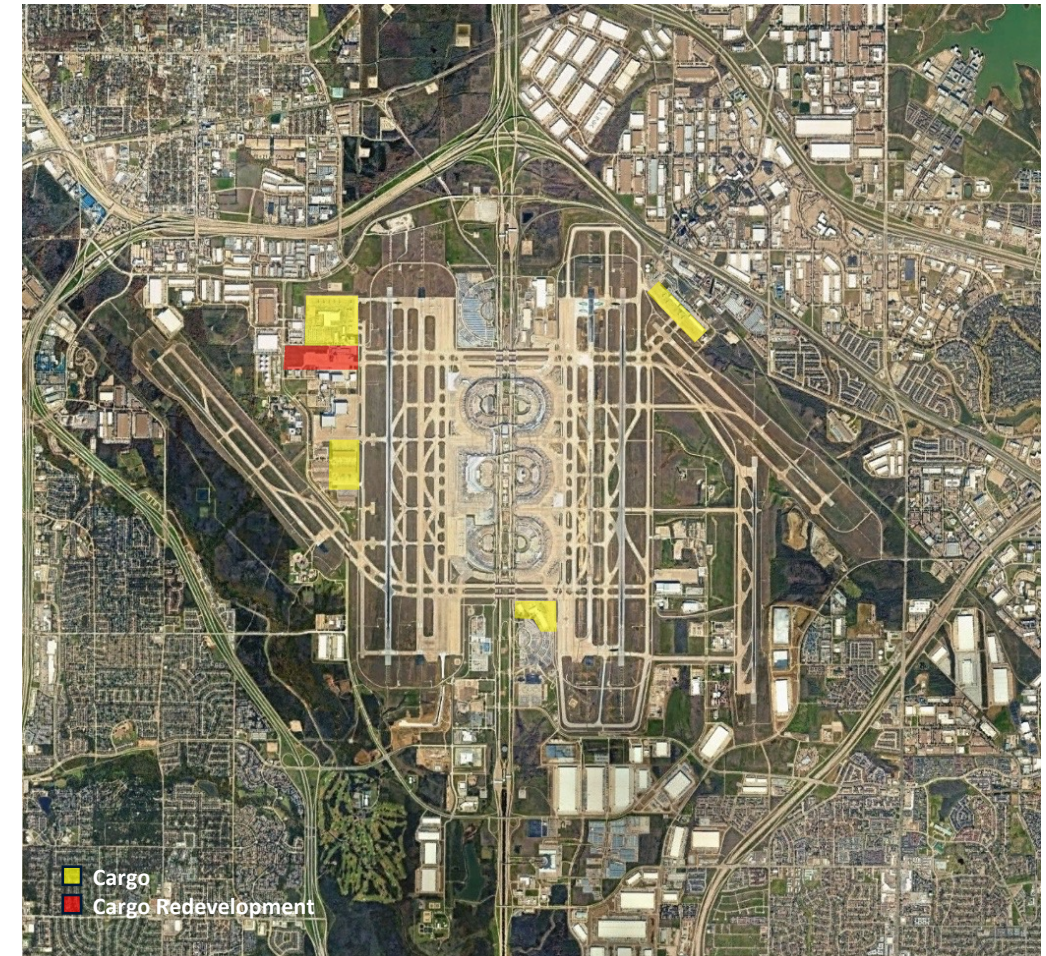
- In 2024, DFW handled 809,000 short tons of cargo representing 70% of total air cargo weight amongst the three airports
- AFW handled 328,000 short tons of cargo in 2024 which equates to 29% of total air cargo of the region's commercial airports
- DAL handled just under 15,000 short tons which accounts for 1% of the combined total for the three airports



Dallas-Fort Worth International Airport (DFW)

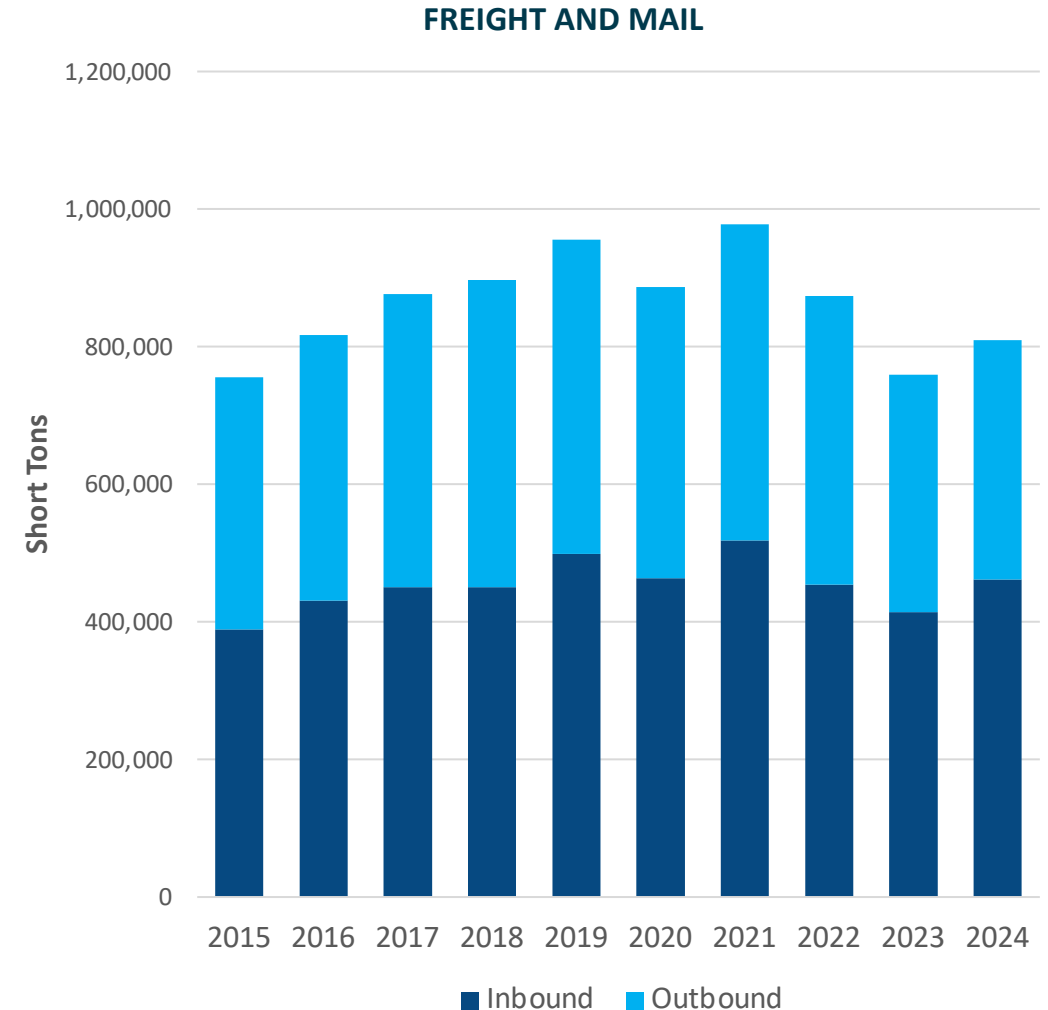
- Seven runways ranging from 8,500 ft to 13,400 ft
- Multiple dedicated cargo facilities, incl. cold chain facility for perishables and pharmaceuticals
- 14 passenger and all-cargo airlines offering cargo services
- 3 integrated express carriers: FedEx, UPS, DHL
- 6 cargo ground handlers
- Over 150 freight forwarders in the immediate area
- On-site U.S. Customs and Dept. of Agriculture
- Cargo redevelopment project to provide 350,000 sf of new facilities and nearly double the cargo aircraft parking area

DALLAS-FORT WORTH (DFW)



Dallas-Fort Worth International Airport (DFW)

- DFW air cargo tonnage over the past 10 years reflects changes in the macro-economy
 - Steady growth through 2015-2019 as international trade and e-commerce shipments increased
 - COVID-related decline in 2020, followed by increased cargo demand in 2021 with government stimulus and consumer spending
 - Post-pandemic down market in 2022-2023
- DFW air cargo tonnage consistently favors inbound shipments; for 2015-2024, inbound cargo accounted for 53% of tonnage
- Return to growth in 2024 will likely be challenged in 2025, due to tariffs and trade wars



Fort Worth Alliance Airport (AFW)

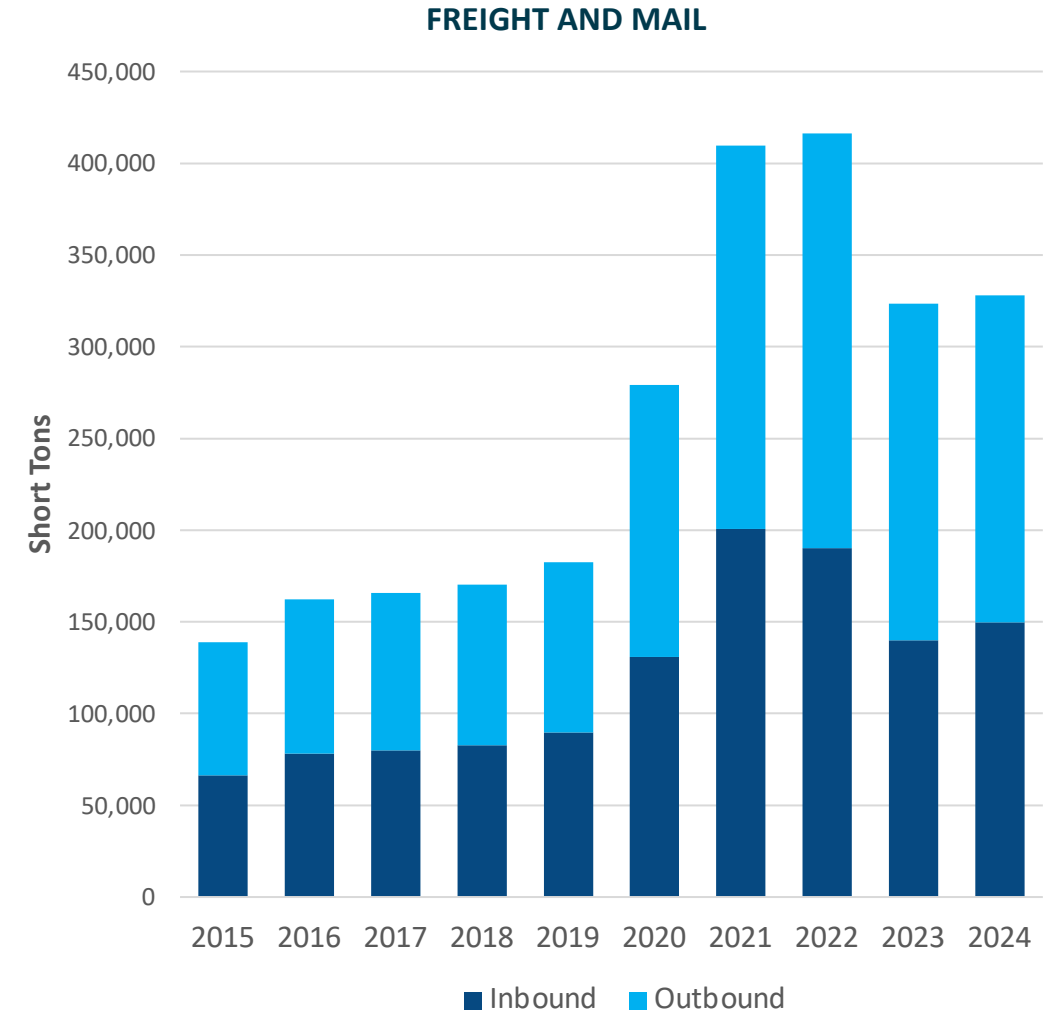
- Two 11,000 ft runways
- Focused on air cargo with FedEx and Amazon Air
- Class IV Airport – no scheduled passenger flights allowed, only charters
- FAA Air Traffic Control tower - 24/7/365
- On-site U.S. Customs
- Full range of services - cargo ground handling, fueling, aircraft parking and maintenance
- 3PL, freight forwarder and broker services
- Amazon Air hub: 1.15 million sf, 28-acre ramp
- FedEx regional hub: 800,000 sf, 50-acre ramp

FORT WORTH ALLIANCE (AFW)



Fort Worth Alliance Airport (AFW)

- AFW cargo activity has experienced major changes since 2015
- FedEx has maintained a regional hub at AFW since 1997 which led to steady growth over time
- In late 2019, Amazon Air established its AFW regional hub, leading to an 80% increase in tonnage at the airport over the next 5 years
- As with DFW, AFW experienced peak years during the pandemic as e-commerce purchases spiked; this extraordinary growth has now normalized
- Given the heavy e-commerce profile of AFW's operations, directional tonnage skews toward outbound shipments; during the 10-year period shown, outbound shipments represent 53% of tonnage



Dallas Love Field (DAL)

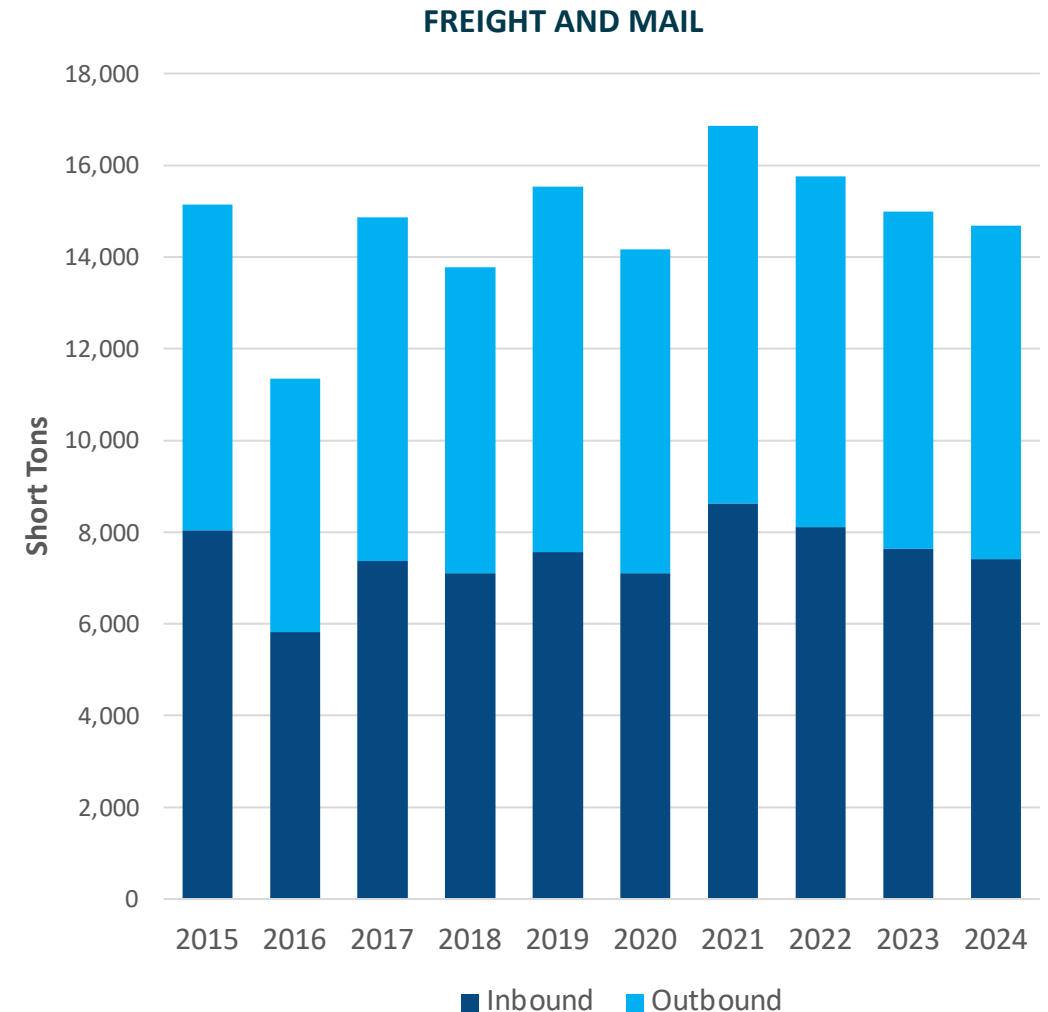
- Two active runways
 - 13L/31R – 7,752 ft
 - 13R/31L – 8,800 ft
- Southwest Airlines Cargo facility
 - 67,000 sf building, 4-acre ramp
 - 5th largest airport in Southwest Airlines' network with over 14,000 tons in 2024
 - Accounts for 99% of DAL cargo
- On-site U.S. Customs with after hours support available

DALLAS LOVE FIELD (DAL)



Dallas Love Field (DAL)

- DAL air cargo is dominated by the belly cargo tonnage of Southwest Airlines
- There are no all-cargo freighter services and no integrated express carriers at DAL
- Due to the scale of its operations at DAL, Southwest Airlines often transships cargo from aircraft to aircraft at the airport
- Southwest's cargo handling practices lead to an overall balanced inbound/outbound profile for DAL; during the 10-year period shown, inbound tonnage was 51% of total and outbound tonnage was 49%



Synthesis

SWOT analysis for DTO air cargo

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Efficiencies from uncongested airport environment • Location in northern region of the DFW Metroplex with high growth profile and proximity to major companies • Nearby interstate highway system (I-35, I-35E and I-35W) provides convenient access to key markets • Local companies value DTO option for cargo charters • Sheltair capably handles cargo charters at DTO and is interested in growing business related to air cargo • Air cargo charter carrier Berry Aviation has based aircraft at DTO and operates on-demand cargo charters from the airport 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Existing runway lacks required length and strength to accommodate certain common all-cargo aircraft which, in turn, limits shipment weight and size at DTO • No dedicated cargo facilities for regular cargo operations • Limited revenue potential under current fee structure for DTO/City related to air cargo • No existing cargo ramp for freighter aircraft • Lack of belly cargo capacity on passenger aircraft serving DTO
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Growing businesses and population in northern DFW metro area likely to drive increased demand for air cargo services • Just-in-Time manufacturing processes rely on air cargo to mitigate risks of production line disruptions • Airside and landside congestion at commercial airports in the region make DTO a viable option for certain air cargo operations • Optimistic outlook for Advanced Air Mobility and UAS/UAV related to air cargo may benefit airports like DTO, potentially for middle-mile applications 	<p>THREATS</p> <ul style="list-style-type: none"> • Robust air cargo services at competing airports in the region (DFW, AFW, DAL) • Few current manufacturers of air-eligible commodities in the immediate DTO region • Lack of concentrated and consistent demand for air cargo services • Tariffs and trade wars threaten overall trade and economic stability leading to reduced demand for air cargo services

Synthesis of Air Cargo Assessment findings

- DTO's air cargo business relies heavily on charter operations, and this is expected to remain the case over the next 20 years.
- Prevailing trends among scheduled cargo operators (e.g., FedEx, UPS, Amazon Air) do not indicate the addition of new airports like DTO to their networks.
- Competition from established commercial airports in the Dallas-Fort Worth Metroplex limits DTO's ability to capitalize on potential opportunities and grow its air cargo business.
- A substantial expansion of air cargo services at DTO would likely require significant investments in cargo facilities, infrastructure, and handling equipment - investments that may not be justifiable given the low revenue levels the Airport/City currently receives from cargo operations.
- Despite this, DTO's air cargo services provide substantial value to key companies in the Denton community, making the continuation of charter cargo operations a priority.
- Effective oversight of DTO's air cargo business should enhance services and help identify growth opportunities within its charter cargo niche.

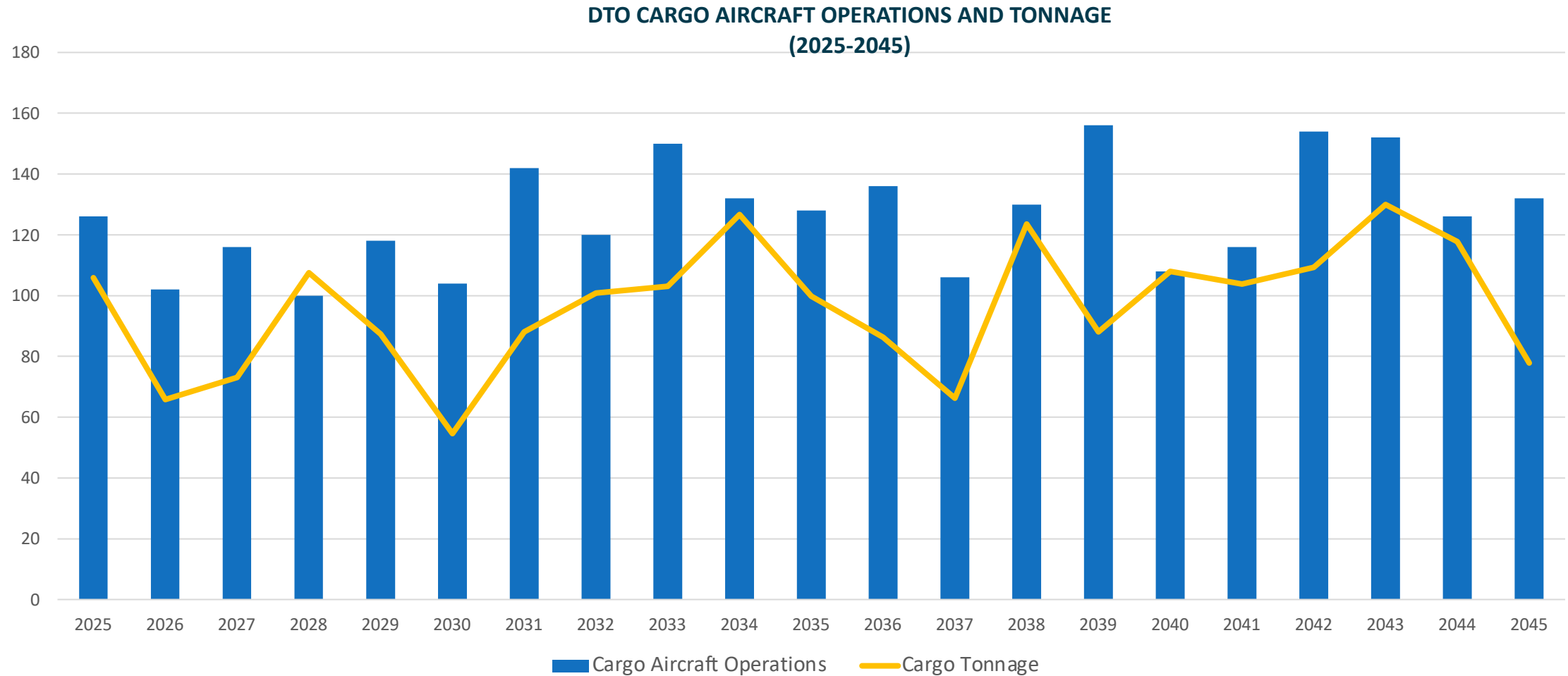
DTO Air Cargo Forecasts

- Aircraft Operations and Tonnage
 - Revenue

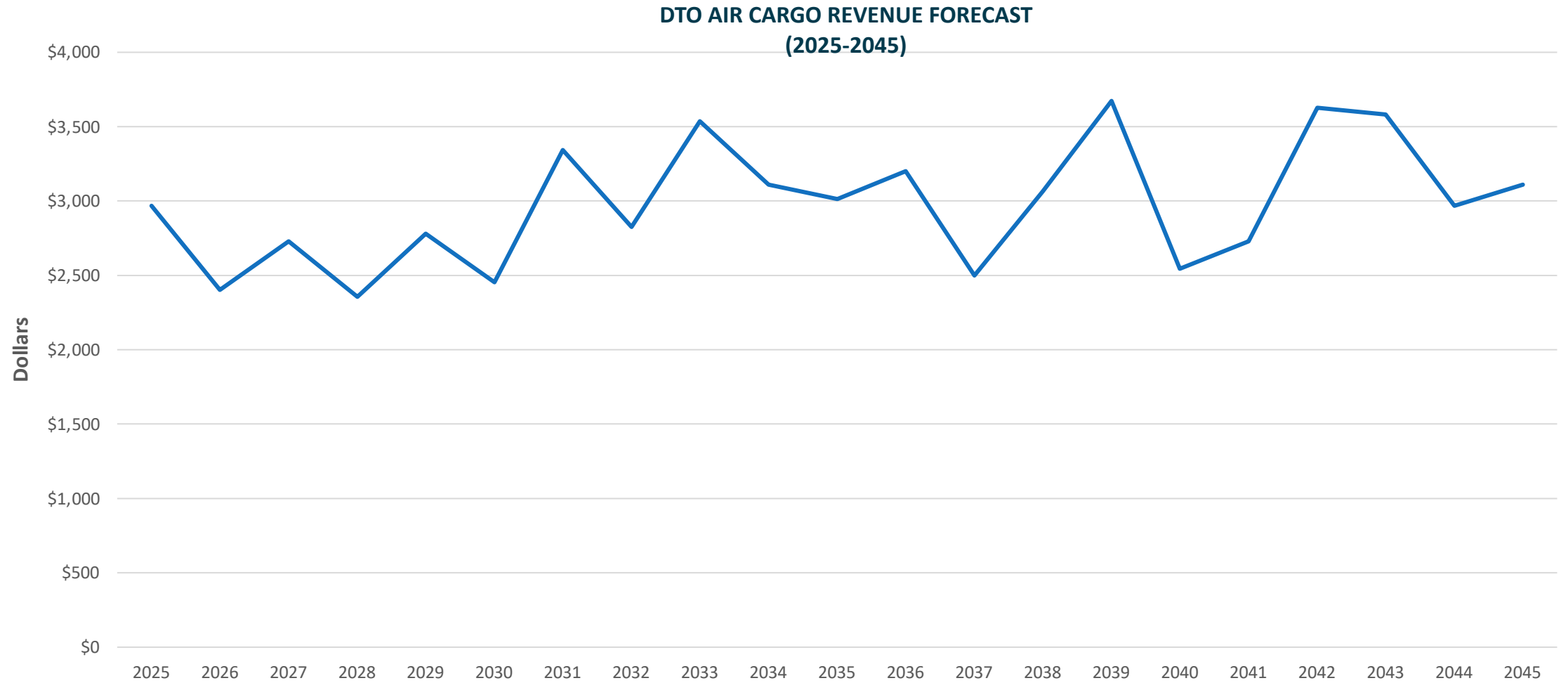
DTO air cargo forecasts – methodology and assumptions

- Long-term 20-year forecasts were developed related to air cargo activity at DTO; these include annual forecasts for cargo aircraft operations (takeoffs/landings), tonnage, and cargo-related revenue generated for the Airport/City
- No historical data could be sourced specifically for DTO's air cargo operations, but inputs gathered through interviews with key stakeholders provided enough details to develop forecast methodologies and formulate informed assumptions
- DTO's cargo charters are heavily influenced by automotive industry activities
 - In Forecast Year 1, we assume that 80% of all cargo operations are related to the auto sector
 - By Forecast Year 20, we assume that 65% of cargo operations are associated with the auto industry, as auto industry usage remains at similar levels, but other users of cargo charters enter the DTO market
- Relationships between auto industry production levels and cargo charter operations were established and enabled estimations of total DTO annual cargo operations
- Given the profile of charter operations, we expect the continuation of highly variable aircraft operations and tonnage on a year-to-year basis at DTO where positive growth years are followed by negative growth years
- For forecast purposes, the EMB-120F was selected as the representative cargo aircraft; this aided in assumptions of average payload for the tonnage forecast as well as for the revenue line items
 - Based on research of typical payloads for cargo charters we established a range of tons per flight to apply to the forecast cargo operations
 - Average hourly fuel burn for the EMB-120F was also determined and an average flight time to DTO was assumed to be 2 hours
- Forecasts of revenue from cargo charters that revert to the Airport/City relate to two main elements: 1) Fuel flowage fees and 2) Overnight aircraft parking fees
 - The fuel flowage fees for the Airport/City are assumed to remain constant at \$0.22 per gallon for the forecast period
 - The overnight parking fees are assumed at a rate of \$50 per aircraft, with 30% of all cargo charters remaining overnight and incurring the fee
 - The Airport/City earns a 12% share of the parking fees and that share is assumed to remain constant during the forecast period

DTO air cargo operations and tonnage forecast



DTO air cargo revenue forecast



DTO air cargo forecast observations

- During the forecast period, DTO cargo aircraft operations and tonnage levels do not show consistent trends due to the on-demand nature of cargo charter operations.
 - Over the 20-year forecast, cargo aircraft operations range from 100 to 156 movements annually while cargo tonnage reaches a low of 55 tons and a high of 130 tons.
 - As a primary influencer of cargo charter activity, the automotive industry is known for its volatility which impacts demand for air cargo services. This is especially true at the individual OEM level where supply chain issues are unpredictable and must be actively managed. The volatility and unpredictability of the industry are reflected in the forecast output.
- The revenue impacts of air cargo for the Airport/City are shown to be minimal in the forecast output. Based on the inputs and assumptions of the forecast model, revenue related to cargo that reverts to the Airport/City totals between \$2,300 and \$3,700 annually during the 20-year period.
 - The low revenue figures are a function of multiple factors, including relatively low levels of annual cargo charter operations, the use of smaller cargo aircraft with low annual fueling requirements, and the limited number of revenue generating sources at DTO.